

ENVIRONMENTAL ASSESSMENT

Project Name: Norman Dykstra **Proposed Implementation Date:** April 1996

Proponent: Fisher Sand & Gravel Co.

Type and Purpose of Action: Fisher proposes to mine 30,000 tons of sand and gravel to be used in conjunction with the reconstruction of Highway 191. Fisher would salvage soils, mine gravel, recontour, creating a 4.1 acre pond up to 2.0 feet deep that would be utilized for a stockwater pond. The slopes above the highwater line as observed in the fall and the 1.6 acres of hardstand areas, crusher site, and mineral stockpile locations will be topsoiled and seeded.

Location: SW¹/₄ SE¹/₄, Sec. 25, T1S, R4E **County:** Gallatin

N = Not present or No Impact will occur.

Y = Impacts may occur (explain under Potential Impacts).

IMPACTS ON THE PHYSICAL ENVIRONMENT	
RESOURCE	[Y/N] POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>1. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE: Are fragile, compactible or unstable soils present? Are there unusual geologic features? Are there special reclamation considerations?</p>	<p>[Y] The proposed site lies on a relatively level portion of the Gallatin Alluvial Valley Floor. This area is predominantly fluvial deposits of Quaternary Age consisting of silt, sand, and gravel.</p> <p>The existing unreclaimed gravel pit which was mined in the 1960's prior to the advent of any reclamation laws will be expanded to the north. The existing gravel pit did not have any soils salvaged from it. A portion of the existing gravel pit will be mined and reclaimed.</p> <p>Soils are classified as a Beaverell gravelly loam and are 1.5 feet deep. The soils would be salvaged prior to mining and replaced on the pond shoreline (down to the low water mark as observed in the fall) , crusher site, hardstand areas, and mineral stockpile sites following recontouring. The operation has a short life span and microbes would recolonize the disturbed soils.</p>

<p>2. WATER QUALITY, QUANTITY AND DISTRIBUTION: Are important surface or groundwater resources present? Is there potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality?</p>	<p>[Y] Test holes dug at the site observed water at 18 feet below the current ground elevation. As indicated from the existing gravel pit the groundwater level in this area varies from 4 - 18 feet below the ground surface. Transmissivity is generally accepted to be a maximum of 37,000 gpd/ft in this area and water quality very good. The applicant will not dewater the site. A dozer will be used to deepen the pond such that there is a minimum of two feet of water in the pond during the period of low water.</p> <p>The nearest well is located approximately 600 feet southwest of the proposed mining area. The well is used for domestic purposes and is up gradient from the proposed site. The well is 43 feet deep. The well should not be impacted by the proposed operation.</p> <p>There are two nearby sources of surface water. There is a small irrigation ditch located 400 feet east of the area to be mined and Dry Creek is approximately 1,200 feet east of the mining site. Neither surface water source will be impacted by the operation.</p> <p>The applicant's fueling and fuel storage areas are contained in a semi trailer which has capacity to contain any petroleum based products spills.</p>
<p>3. AIR QUALITY: Will pollutants or particulate be produced? Is the project influenced by air quality regulations or zones (Class I airshed)?</p>	<p>[N] There will be an increase in airborne particulates while the soil is being salvaged, the gravel being crushed and hauled, and soil replaced. The applicant has secured an Air Quality Permit from the Montana Dept. of Health and Environmental Sciences Air Quality Bureau and must abide with all applicable air quality guidelines. If required, spray bars will be placed on the crusher to suppress dust. The hard stand areas, soil stockpiles, and haul roads will be watered as necessary.</p>
<p>4. VEGETATION COVER, QUANTITY AND QUALITY: Will vegetative communities be permanently altered? Are any rare plants or cover types present?</p>	<p>[Y] Existing vegetation will be removed with the soil. Some roots may remain viable in the soil stockpile and regenerate upon replacement. The applicant will seed all affected land to species compatible with the post mine land use. The site currently contains native grasses and shrubs. The majority of the old pit area contains no vegetation. The site will be seeded with native species and no rare or threatened plants are present.</p>
<p>5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS: Is there substantial use of the area by important wildlife, birds or fish?</p>	<p>[N] The location of the proposed operation precludes the significant use of wildlife, although it would be expected to receive transient use by various avian species and some rodents.</p>

<p>6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES: Are any federally listed threatened or endangered species or identified habitat present? Any wetlands? Species of special concern?</p>	<p>[N] The Montana Natural Heritage Program has not identified any threatened or endangered plant or animal species present on this site. There is no wetland present on the site.</p>
<p>7. HISTORICAL AND ARCHAEOLOGICAL SITES: Are any historical, archaeological or paleontological resources present?</p>	<p>[N] A literature search by the MDOT Cultural Resource Specialist did not reveal the presence of any archaeological or historic values and no survey was required due to existing amount of disturbance on the site.</p>
<p>8. AESTHETICS: Is the project on a prominent topographic feature? Will it be visible from populated or scenic areas? Will there be excessive noise or light?</p>	<p>[N]</p>
<p>9. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY: Will the project use resources that are limited in the area? Are there other activities nearby that will affect the project?</p>	<p>[N]</p>
<p>10. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES: Are there other studies, plans or projects on this tract?</p>	<p>[N]</p>

IMPACTS ON THE HUMAN POPULATION

RESOURCE	POTENTIAL IMPACTS AND MITIGATION MEASURES
<p>11. HUMAN HEALTH AND SAFETY: Will this project add to health and safety risks in the area?</p>	<p>[Y] The use of heavy mining and hauling equipment will increase the risk of accidents. However, the applicant must comply with OSHA and MSHA regulations and it is expected that safety considerations will be given the utmost attention. The haul trucks and other equipment will access East Hulbert Road and travel east 1.5 miles and turn onto Love Lane and travel south approximately 3.0 miles to the Page Pit. There will be approximately 3 twenty yard dump trucks hauling from the site. Depending on the weather and activities at the Page Pit hauling should be completed within 3 weeks.</p> <p>The hours of operation will be from 6 a.m. to 9 p.m. Gallatin County has restricted the use of off highway trucks on Love Lane. No load limit restrictions have been placed by the county on Love Lane, but the contractor will be required to maintain Love Lane and place dust suppressant on the road. The county has required that Love Lane be left in better condition than its current state upon completion of the project. There will be additional noise generated by backup alarms on the equipment, crusher operations, and hauling. The topsoil stockpiles will be strategically placed in the directions of residences to mitigate, as much as feasible, noise generated by the proposed operation. Crushing operations will be tentatively completed in early to mid June 1996.</p>
<p>12. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION: Will the project add to or alter these activities?</p>	<p>[Y] 2.1 acres will be removed from agricultural (grazing) where the pond will be created. The pond will be used for livestock however for watering of livestock. 1.7 acres of the site will be taken out of grazing until such time as the site is reclaimed and the vegetation successfully reestablished.</p>
<p>13. QUANTITY AND DISTRIBUTION OF EMPLOYMENT: Will the project create, move or eliminate jobs? If so, estimated number.</p>	<p>[N]</p>
<p>14. LOCAL AND STATE TAX BASE AND TAX REVENUES: Will the project create or eliminate tax revenue?</p>	<p>[N]</p>

<p>15. DEMAND FOR GOVERNMENT SERVICES: Will substantial traffic be added to existing roads? Will other services (fire protection, police, schools, etc) be needed?</p>	<p>[N] The site will require periodic site evaluations by DEQ staff, however they would generally be conducted in conjunction with other regional sites.</p>
<p>16. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS: Are there State, County, City, USFS, BLM, Tribal, etc. zoning or management plans in effect?</p>	<p>[N] Zoning clearance has been secured.</p>
<p>17. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES: Are wilderness or recreational areas nearby or accessed through this tract? Is there recreational potential within the tract?</p>	<p>[N]</p>
<p>18. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING: Will the project add to the population and require additional housing?</p>	<p>[N]</p>
<p>19. SOCIAL STRUCTURES AND MORES: Is some disruption of native or traditional lifestyles or communities possible?</p>	<p>[N]</p>
<p>20. CULTURAL UNIQUENESS AND DIVERSITY: Will the action cause a shift in some unique quality of the area?</p>	<p>[N]</p>
<p>21. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:</p>	<p>[N]</p>

22. Alternatives Considered: Alternative # 1: Denial. The owner of the gravel resource would be denied full utilization of his property at this time.

23. Public Involvement, Agencies, Groups or Individuals contacted: Montana Natural Heritage Program, Montana Dept. of Transportation, Gallatin Co. Weed Board and Road Department. In addition, all nearby residents were offered the opportunity by way of Resident Notification Forms to indicate objections or concerns.

